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PART V

DEPARTMENT OF TRANSPORTATION

Coast Guard

BOATS AND ASSOCIATED EQUIPMENT

Flotation Materials

[4910-14-M]

Title 33—Navigation and Navigable Waters

CHAPTER I—COAST GUARD, DEPARTMENT OF TRANSPORTATION

[CGD 77-145]

PART 183—BOATS AND ASSOCIATED EQUIPMENT

Flotation Materials

AGENCY: Coast Guard, DOT.

ACTION: Final Rule.

SUMMARY: This amendment to the Coast Guard flotation standard for monohull boats under 20 feet in length establishes performance specifications for flotation materials. Present standards do not specify how performance characteristics can be determined. This amendment will enable a manufacturer of a boat to determine if the flotation material used in the boat is able to meet minimum safety standards.

EFFECTIVE DATE: This regulation is effective on August 1, 1979, however, manufacturers may voluntarily comply with the regulations at the time of this publication.

FOR FURTHER INFORMATION CONTACT:

Mr. Lars E. Granholm, Office of Boating Safety (G-BBT), U.S. Coast Guard, Room 4314, Department of Transportation, Trans Point Building, Washington, D.C. 20590, 202-426-4027.

SUPPLEMENTARY INFORMATION: The Notice of Proposed Rulemaking was published in the FEDERAL REGISTER by the Coast Guard on March 6, 1978. Interested persons were invited to participate in the proposed rulemaking by submitting relevant comments.

DRAFTING INFORMATION: The principal persons involved in drafting this amendment are: Mr. Lars E. Granholm, Project Manager, Office of Boating Safety and LT Robert R. Meeks, Project Attorney, Office of Boating Safety.

DISCUSSION OF COMMENTS: Two comments were received in response to the invitation. Both commenters offered arguments which were carefully considered. The amendment is modified in view of these comments.

One commenter suggested that the word "volume" in paragraph 183.114 should be replaced by the words "buoyant force", because the performance requirement is related more to loss of buoyancy, i.e., the property of being able to support a swamped boat, than the volume of the flotation material. The commenter further suggested that a test method be specified whereby the buoyancy can be measured. These comments are accepted. The Coast Guard agrees that the words "buoyant force" describe the intended purpose of the test better than the word "volume". A test for determining the buoyancy is added in paragraph 118.114(h). Although different methods for testing buoyant forces can be used, the Coast Guard believes that a standard method should be included in the rule.

The same commenter also pointed out that in paragraph 183.110, the definition of "connected" should include the same test specification as used in the definition of "sealed compartment". That specification establishes what the pressure head of water should be for determining a leakage rate. This comment is accepted and the specification is added to the definition of "connected" to make it consistent with the definition of "sealed compartment".

The commenter further pointed out that the temperature specifications should include either the word "maximum" or "minimum". This comment is accepted. Flotation foams deteriorate more with higher temperature, therefore, the temperature specified is a minimum temperature; the word "minimum" is for this reason added to paragraph 183.114(a).

The other commenter pointed out that the temperature specification in paragraphs 118.114(b) through 118.114(g) is somewhat higher than ambient temperatures in testing laboratories and would require specially heated areas for conducting tests. He pointed out that by lowering the specified temperature by 6° C, testing laboratories could perform the tests without specially heated areas. The temperature, suggested by the commenter, is the standard laboratory temperature listed in ASTM D-471 as 23 plus or minus 2° C. The comment pointed out that the solubility of any material is relative to temperature, and this proposed lowering of the test temperature will enhance the chemical resistance of the plastic foam. However, the commenter does not believe that lowering the temperature to the suggested level will endanger the primary objective of differentiating between oil resistant and standard grades of foams. The Coast Guard accepts this argument and a temperature of 23 plus or minus 2° C is specified for the tests.

Paragraphs 183.222(a) and 183.322(a) are revised. The words "engine room bilge" and "engine room" are removed. The reason is that these paragraphs address only outboard boat requirements, and outboard boats have no engine rooms.

This amendment has been reviewed under DOT Notice 78-1, Improving Government Regulations (43 FR 9582). A final evaluation has been prepared and is available for inspection at the Marine Safety Council.

In consideration of the foregoing, Part 183 of Title 33 of the Code of Federal Regulations is amended as follows:

1. By revising § 183.110 to read as follows:

§ 183.110 Definitions.

For the purpose of this subpart—

"ASTM" means American Society for Testing and Materials. The Coast Guard incorporates by reference ASTM Standard D-471, dated March 28, 1975, in § 183.114 of this subpart. This incorporation by reference was approved by the Director of the Office of the Federal Register on December 6, 1977. The Coast Guard also incorporates by reference ASTM Standard D-2842, dated November 14, 1969 (reapproved 1975), in § 183.114 of this subpart. This incorporation by reference was approved by the Director of the Office of the Federal Register on September 11, 1978. The incorporated standards are available for inspection at Coast Guard Headquarters, Room 4313, Trans Point Building, 2100 2nd St., SW., Washington, D.C. 20590 and at the Office of the Federal Register library, Room 8401, 1100 L St., NW., Washington, D.C. 20408. The incorporated standards may be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103.

"Bilge" means the area in the boat, below a height of 4 inches measured from the lowest point in the boat where liquid can collect when the boat is in its static floating position, except engine rooms.

"Connected" means allowing a flow of water in excess of one-quarter ounce per hour from the engine room bilge into any other compartment with a 12 inch head of water on the engine room side of the bulkhead.

"Engine room bilge" means the area in the engine room or a connected compartment below a height of 12 inches measured from the lowest point where liquid can collect in these compartments when the boat is in its static floating position.

"Engine room" means the compartment where a permanently installed gasoline or diesel engine is installed, including connected compartments.

"Open to atmosphere" means a compartment that has at least 15 square inches of open area directly exposed to the atmosphere for each cubic foot of net compartment volume.

"Sealed compartment" means an enclosure that can resist an exterior water level of 12 inches without sep-

page of more than one-quarter fluid ounce per hour.

2. By adding a new § 183.112 to read as follows:

§ 183.112 Flotation material and air chambers.

(a) Flotation materials must meet the requirements in § 183.114 as listed in table 5 when used in the: (1) Engine room bilge, (2) engine room, or (3) bilge, unless located in a sealed compartment.

(b) Air chambers used to meet the flotation requirements of this subpart must not be integral with the hull.

3. By adding a new § 183.114 to read as follows:

§ 183.114 Test of flotation materials.

(a) *Vapor test.* The flotation material must not reduce in buoyant force more than 5 percent after being immersed in a fully saturated gasoline vapor atmosphere for 30 days at a minimum temperature of 38° C.

(b) *24-hour gasoline test.* The flotation material must not reduce in buoyant force more than 5 percent after being immersed for 24 hours at 23 plus or minus 2° C in reference fuel B, of ASTM D-471, dated March 28, 1975.

(c) *30-day gasoline test.* The flotation material must not reduce in buoyant force more than 5 percent after being immersed for 30 days at 23 plus or minus 2° C in reference fuel B, of ASTM D-471, dated March 28, 1975.

(d) *24-hour oil test.* The flotation material must not reduce in buoyant force more than 5 percent after being immersed for 24 hours at 23 plus or minus 2° C in reference oil No. 2, of ASTM D-471, dated March 28, 1975.

(e) *30-day oil test.* The flotation material must not reduce in buoyant force more than 5 percent after being immersed for 30 days at 23 plus or minus 2° C in reference oil No. 2, of ASTM D-471, dated March 28, 1975.

(f) *24-hour bilge cleaner test.* The flotation material must not reduce in buoyant force more than 5 percent after being immersed for 24 hours at 23 plus or minus 2° C in a 5-percent solution of trisodium phosphate in water.

(g) *30-day bilge cleaner test.* The flotation material must not reduce in buoyant force more than 5 percent after being immersed for 30 days at 23 plus or minus 2° C in a 5-percent solution of trisodium phosphate in water.

(h) The buoyant force reduction in (a)-(g) is measured in accordance with ASTM D-2842, dated November 14, 1969 (reapproved 1975).

4. By revising § 183.222 to read as follows:

§ 183.222 Flotation material and air chambers.

(a) Flotation materials must meet the requirements in § 183.114 as listed in table 5 when used in the bilge, unless located in a sealed compartment.

(b) Air chambers used to meet the flotation requirements of this subpart must not be integral with the hull.

5. By revising § 183.322 to read as follows:

§ 183.322 Flotation materials.

(a) Flotation materials must meet the requirements in § 183.114 as listed in table 5 when used in the bilge, unless located in a sealed compartment.

6. By adding a new table 5 to follow § 183.335 to read as follows:

TABLE 5 - FLOTATION PERFORMANCE TESTS

Area 183.110 / Test 183.114		(b) Engineroom Bilge	(c) Engineroom Unless Open to Atmosphere	(d) Bilge
(a)	Vapor Test		X	
(b)	24 Hour Gasoline Test			X
(c)	30 Day Gasoline Test	X		
(d)	24 Hour Oil Test			X
(e)	30 Day Oil Test	X		
(f)	24 Hour Bilge Cleaner Test			X
(g)	30 Day Bilge Cleaner Test	X		

NOTE.—The Coast Guard has determined that this document does not contain a major proposal requiring preparation of an economic impact statement under Executive Order 11821, as amended, and OMB Circular A-107.

(Sec. 5, Pub. L. 92-75, 85 Stat. 215 (46 U.S.C. 1454); 49 CFR 1.46(n)(1).)

Dated: November 27, 1978.

R. H. SCARBOROUGH,
Vice Admiral, U.S. Coast Guard,
Acting Commandant.

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